Soniccouture

Skiddaw Stones User Guide

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INSTALLING YOUR SONICCOUTURE PRODUCT

If you do not own Kontakt, you can install the free **Kontakt Player**

If you have an earlier (pre 5.6.8) version of Kontakt, click here

1. Open NI Kontakt in **standalone mode**.

2. In the *Libraries* tab, click *Manage Libraries*

3. Click *Launch Native Access* : Login or create an account if you don't have one.

4. Click *Add A Serial* (find it in your **SC account** with the product download).

5. Copy and paste the number in the box and click *Add Serial*

6. Navigate to the downloaded product folder and select it

7. Click **INSTALL** to complete the process.

NOTE: The login for **NI Native Access** is not the same as your login for the Soniccouture site. You must create an account with Native Instruments if you don't already have one.

LIBRARY SPECIFICATIONS

- 2.5 GB Library
- Wood, Rubber, Scraped mallets
- 44.1 Khz, 24 bit Stereo Sampling
- 12 Velocity layers
- 3 - 5 Round Robin layers
- Kontakt Player / NKS compatible

HISTORY OF THE STONES

Skiddaw over Derwent Water

The story of *The Musical Stones of Skiddaw* is a captivating one. A Mr. Peter Crosthwaite of Keswick, Cumbria (The Lake District), noticed one day that the rocks and stones in the local area were particularly sonorous. This rock was not the ubiquitous Slate, but something altogether more rare and interesting called Hornfels, found on the nearby mountain Skiddaw.

On June 11 1785, Crosthwaite was walking around the area of Skiddaw and he made a startling discovery; there was music in the rocks. He told people that the first six 'music stones' he found on that day were in perfect tune; the remaining ten of the set took six months to find, with Crosthwaite working twelve hours a day to tune, carefully chipping away at the stone until the desired note rang true. He carved into each stone the letter corresponding to the note which the stone sounded. The result was a sort of xylophone, known as the Musical Stones. In his museum at the bottom of Keswick's Market Place, Crosthwaite set up mirrors near the windows to see approaching carriages. When a carriage neared, he played a rudimentary tune on his Musical Stones and his daughter and an old woman banged a drum, rattled a gong and a played a barrel organ.

This cacophony of noise flooding out of the Museum was meant to attract the attention of the carriage passengers so they might pay a shilling and come and look round.

THE RICHARDSON SET

Joseph Richardson (1790), a stonemason and gifted amateur musician from Keswick, continued the experiment in lithophones after noting the nearly-musical tones of some of the rock he worked with. He began to test the various rocks of the Lake District for their note and collected ones that gave a pure, resonant ring, forming them into a sequence.

At 1827 in Thornthwaite, he found that the rocks of Skiddaw had the best tone of all and endeavoured to produce an instrument on a larger scale than Crosthwaites, which would have every musical note. The geological name for the rock both Crosthwaite and Richardson used for their instruments is hornfels. It took Richardson almost thirteen years to collect and shape enough individual notes of hornfels to make an eight-octave range. The massive task of assembling this instrument consumed Joseph so absolutely that he and his family were reduced to poverty. Finally, in 1840, he completed his own lithophone, now known as 'The Richardson Set'.

Joseph enlisted his three sons and they began practicing with the instrument and giving concerts locally. Having gained support and acclaim in the Keswick region, they set off on

a three-week tour of the major northern towns of England. Their reception and immediate success meant that they did not see their home again for three years. One local newspaper noted that "everyone appeared much delighted with the sweet sound elicited from the rugged and uncouth looking and unique instrument". Their success encouraged them to head for London, where "the wonderful merits of your admirable instrument cannot fail to be well-received by the London public who are very musical people".

The repertoire included selections from Handel, Beethoven and Mozart and arrangements of waltzes, quadrilles, galops and polkas. Considerable variation in tone was achieved by using different methods of striking the notes, creating a blend of organ, piano, harp and flute sounds, though the full power of the instrument had to be withheld because of the fear of shattering the concert hall windows. The concerts were popular: The richness and sweetness of the tones astonished onlookers. An 1846 newspaper advertisement for a performance in Luton states that the range of the instrument went from the warble of a lark to the deep bass of a funeral bell. Journalist Minnie Broatch, writing in 1842, explains that the musical stones look more or less like hammered dulcimers, but on a gargantuan scale.

The bells Richardson added to the stones; these were not recorded.

To increase the musical range, the instrument was updated in the mid 1840s with two rows of steel bars, Swiss bells and large kick drums, and became Richardson & Sons, Rock, Bell and Steel Band. On 23 February 1848 the Richardsons played at Buckingham Palace, by command of Queen Victoria. Prince Albert of Saxe-Coburg and Gotha was
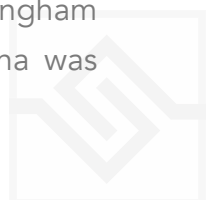
present, and a large assembly of English and foreign noblemen and women. The Band was well received; indeed, two of the pieces were requested for an encore. According to The Times, it proved one of the most extraordinary and novel performances of the Metropolis. As a result, the Queen requested two further performances. However, although very impressed overall, Victoria was not amused by the sound of the Alpine bells.

Over sixty concerts were given in London alone and the Band toured all over Britain and, subsequently, in France, Germany and Italy, being transported by train. A concert trip to America was planned, but Robert, the youngest son and the most talented player, became ill just before before the date of departure and died of pneumonia. The tour was abandoned, and the instrument was packed away. Subsequently, the instrument was given to Keswick Museum in 1917 by the grandson of Joseph Richardson, Richardson Henderson, after an unsuccessful attempt by him to revive the family business.

Richardson is buried at Kensal Green Cemetery in London. As well as a gravestone, Joseph also has a monument there to mark his life and his achievement. The monument is the tallest obelisk in the cemetery and it reads:

"In Memory of Joseph Richardson, formerly of Underskiddaw, Keswick, Cumberland Inventor of the Instruments of the Rock, Bell and Steel Band"

Later sets of Musical Stones include the Till Family Rock Band, exhibited and performed upon by Daniel Till of Keswick and his two sons in 1881 at The Crystal Palace. The Tills later toured America extensively and one of their instruments is now held in the Metropolitan Museum, New York. The Abraham Brothers of Keswick, famous for their mountaineering and photography, collected a set of fifty-eight stones in the late nineteenth century, which took them twelve years and which they exhibited in their photography shop on Lake Road and gave concerts in a hall nearby.

RECORDING THE STONES

Chris Stones plays the Skiddaw Stones at Music Farm studios, Cumbria

Keswick Museum very kindly agreed that we could record the Stones. A few quick questions to Nikki at the musuem revealed that it would not be a suitable place to record, however - near a road, open to the public and other issues. Pushing our luck still further, we asked if we could possibly take the stones to a recording studio for the day. To our amazement, they agreed to this also, provided that they were accompanied by an insured member of the museum team, and that they were safely back before nightfall. This meant we would be tight for time, but we could do it.

We asked if there was anyone available with experience of setting up and playing the stones - the museum put us onto Chris Stones (yes, we know), of local sound collective Soundwave. A studio was found about 45 minutes away in Egremont.

The day came, and at the crack of dawn we met at the museum and carefully packed each stone into the custom flight-cases. With an insurance value of £5000 per stone, the whole collection is worth in the region of £350k, so this was not a job that could be rushed.

We arrived at the studio and setup the stones on their sound-boxes - these were built a few years ago as a temporary solution to allow them to be played off-site, since the original frame cannot leave the museum. Unfortunately the sound-boxes do not sound very good - they add a low boxy tone to the stones, and do not allow them to ring as fully as they might if hung or mounted properly. This is also the case with Richardsons original frame, however. This box noise was filtered out as part of post production.

The stones were mic'ed with 2 stereo pairs - one pair of Peluso CEMC6 spaced about 4 feet apart, and some Gefell M300s as a coincident pair. These ran directly into a Focusrite ISA428 4 channel preamp, then out of its built-in convertors into the laptop.

The mics needed to cover a very large area - the full spread of the stones laid out in a line only just fitted in the live room of the studio, and as you can see, didn't fit in the lens of camera. Incredibly, this is only the white notes - all the stones do not fit on the sound-boxes at once. For this reason, we recorded all the white notes first, then packed them away and set up all the black notes afterwards, in the correct places to preserve the stereo image.

This is why we opted for 2 mic pairs - the second spaced pair to cover the edges of the image that the M300s would struggle to reach.

We recorded 2 different sets of mallets - a rounded, wooden pair that gave a huge dynamic range with a big Clang! into the bargain, and a soft rubber pair, that had much less range, but an arguably prettier timbre. The wooden mallets are old, possibly dating from Richardsons time, although the genuine original mallets, displayed at the museum, are leather bound things that don't sound very good at all. It's possible that time has affected the tension of the leather or some other factor. The rubber mallets used were fairly standard modern percussion mallets.

Both sets of mallets were used to laboriously capture large sets of velocity hits, then an extra articulation was recorded - the sound of the head of the wooden mallet being scraped across the stone surface - a surprisingly haunting and resonant sound.

None of the extra bells or metal bars that Richardson later added were recorded. Partly this was a time issue - we only had one day with the stones, and that was fully used
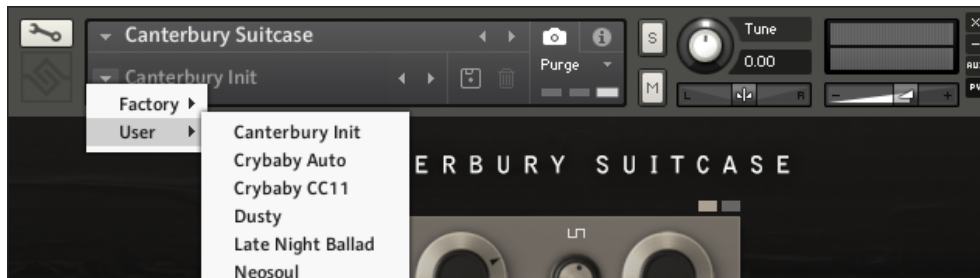
- but also because these do not sound very interesting, and are not part of the original lithophone, from a purist point of view.

After an exhausting 12 hour recording session, the stones were packed up once again, and returned safely to the museum, where we carefully set them up on their original frame once again.
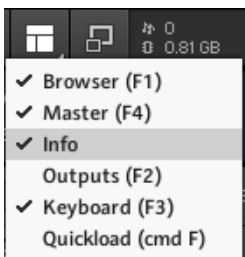
THE KONTAKT INSTRUMENT

SNAPSHOTS

Kontakt stores presets as Snapshots, and we've provided a selection of different Morpheus sounds here as Snapshots. To access them, click the 'camera' icon at the top of the Kontakt window and you'll see a drop down menu. The Factory section contains the ones we've made, and your own will be stored in the User section.

BUILT-IN HELP

If you activate the Info pane in Kontakt, you can hover over any control in the instrument and a short note will appear in the Info pane at the bottom describing what that control does.

THE MAIN PANEL

CONTROLS

ENVELOPE SECTION

ATTACK: adjusts the speed of the start of the sound, from fast to slow

DECAY: adjusts how long the sound decays after the attack phase

SUSTAIN: adjusts the level at which the decay stops and sustain begins

RELEASE: adjusts how long the sound rings after the key is released

VEL: adjusts the Velocity response - how loud the sound gets with a key press

The Square switches flip between Amp envelope & Filter envelope

FILTER SECTION

CUTOFF: adjusts the frequency of the low-pas filter - lower values are darker

RES: emphasises the frequencies around the CUTOFF for a ringing sound

ENV: bipolar control of modulation of cutoff frequency by the Filter Envelope

VEL: bipolar control of modulation of cutoff by velocity (key pressure)

HPF: A high-pass filter - this removes bass frequencies and thins the sound.
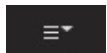
Menu selects filter type.

THE MODULATION TABS

TREMOLO
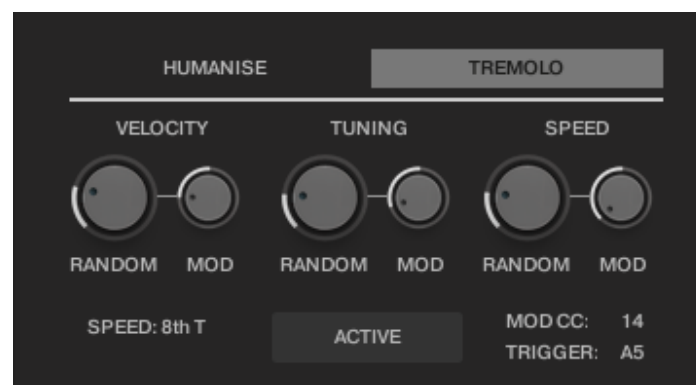
A characteristic technique of tuned percussion playing is tremolo.   Virtuoso players are able to repeat notes very quickly with just their right thumb, while continuing other parts with the remaining fingers and left hand.

This page allows you to set up a tremolo behaviour that can be turned on or off with a key or a controller.

The basic speed of the Tremolo is set by a drop down menu and related to the tempo of Kontakt or your sequencer. Below that, the "Trem Key" and "Trem CC" define the note and controller that will turn the tremolo on or off. Trem CC defaults to the sustain pedal, since a Guzheng usually rings freely and is not damped.

There is also a "Trem Mod" CC, which is a MIDI controller you can set to adjust the tremolo in real time. This is set to 41 by default, but you can set it to anything you find convenient.

When the Trem Mod CC is brought up from zero, three things can change: velocity, tuning, and speed. You set the amount of the modulation for each of these with Knobs to the left under "Modulation Depth Parameters".

Above those, you have the same three Knobs but for randomizing those same parameters (velocity, tuning, and speed). The randomizing is unrelated to the Trem Mod CC, and will happen all the time when the tremolo is engaged.

The "On/Off" button at the bottom right of this page is just to show you the current state.

HUMANISE

TIMING: Adjusts the amount of random variation in the note timing, for a slightly
        'imperfect' feel.
VELOCITY: Introduces random variations in the force or velocity of the hits.

ARTICULATION CONTROL

These buttons are used to select the rubber or wood mallets, or the scraped stone articulation. These buttons can be assigned to a MIDI key for real-time performance.

THE JAMMER PANEL

The play-notes icon at the top right enables or disables the Jammer.   Any Elements that are set to respond to the Jammer on the main Haunted Spaces panel will do so.   (If none are set to respond, the Jammer will have no effect.)

The five knobs along the top of the Jammer are global controls, these are:

MODE This sets the type of arpeggiation used to create patterns. The original Jammer mode is Random mode, but you can also choose Up, Down, or Up Down, for somewhat more traditional arpeggiator results. This controls how the notes are selected from what you are holding down.

RATE controls the speed of the Jammer, this is always related to the tempo of Kontakt or the host sequencer.

LENGTH is an offset to the duration of the created notes. In the centre position, the notes are created at the same duration set by the Rate knob, but using LENGTH you can make these longer or shorter.

VEL OFFSET adds or subtracts from the velocity of the notes created by the Jammer. Automating this can be useful for creating fades.

SWING adds some time to the offbeat notes to give a shuffle or swing feeling to the rhythm.

The next five sliders are controls for the generative part of Jammer, which are essentially randomising various aspects of note generation. These are:

NOTE add random offsets to the pitches you give Jammer (are holding down). This is in semitones, so if it's set to "1" the Jammer will output notes plus or minus 1 from the notes you play, as well as the note you play.

OCTAVE add random octave offsets to the pitches created by Jammer. This control only ADDS octaves, it doesn't subtract octaves.

TIME add random changes to the timing of the Jammer, so that the result is less stable and rhythmic.

VELOCITY add random changes to the velocity of the output notes. This always uses the input velocity as a starting point, so if the VELOCITY range is small, it will just add small changes to your input velocity.

GAPS add random rests or silent beats into the Jammer sequence.

In the middle of this section you'll see a button titled "EVOLVE", with the number 16 to the right of it (by default). EVOLVE mode means that the Jammer is working to generate new data constantly, the randomisers are always creating new patterns from your input notes.

If you click on EVOLVE, the button changes to display LOOP. Now the Jammer is repeating the pattern it most recently created. The length of this pattern is determined by the number to the right, so by default it repeats the last 16 generated 'notes'.

It's important to remember that the Jammer is not storing the 'notes' themselves, but rather the choice of, and offsets to, the input notes you play into it. So even in LOOP mode, the Jammer will output different notes depending on what notes you play. The
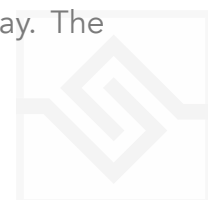
pattern is stored, not the exact notes themselves. This means you can created quite complicated patterns, but play them with any chord or input notes.

THE PITCH FILTER

Below the EVOLVE section is a small keyboard that represents a pitch filter. Here you can limit the output notes of the Jammer to a certain key or chord or any selection of notes you like. At the top of the small keyboard is a drop down menu with some popular scales, but you can click on the keyboard directly to allow or disallow any pitch as you like.
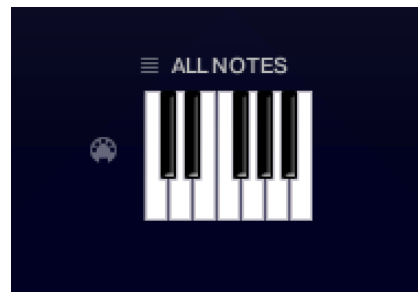
You can also use the MIDI input switch on the left of the keyboard to LEARN a scale by playing it into the Jammer.
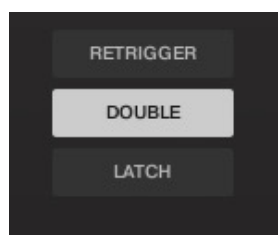
PRESET FADER AND STORE MENU
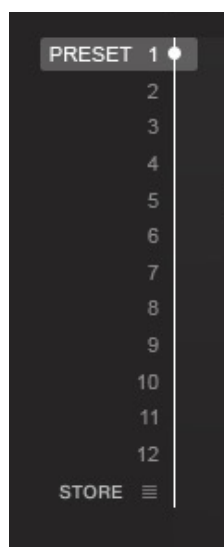
This fader on the left chooses between 12 presets.

The menu at the bottom lets you store the complete Jammer setup into any of the preset positions.

You can also copy and paste presets to different positions, or import / export patterns between various Soniccouture instruments that have the Jammer.

RETRIGGER will force the Jammer to start from the beginning after all notes are lifted (legato).

KEY LATCH will tell the Jammer to hold the current notes until new notes are received.

DOUBLE NOTES will trigger two notes on each step, as if you are playing with both hands simultaneously.

CALDER

Inspired by mobile sculptures, in which a few objects float around in space, looking slightly different all the time and from different angles, CALDER is a structure that allows played notes to drift around in time.

The "space", or time through which the notes can drift is defined by the RATE and the GRID.   The GRID is the number of steps of note value RATE.

There are up to three "objects", turned on at the top with LOOP 1, LOOP 2, and LOOP 3. For each object, CALDER will choose one of the notes you are playing in real time. There is a graphic representation of each objects position in the grid at the very top.

Each of these objects has the same controls below it; WEIGHT, NOTE, VEL, and PAN.

WEIGHT controls the chance of this object moving in time from one repeat to the next. With zero weight, the object will move at each repeat, with maximum weight the object will not move.

NOTE introduces a random drifting of the pitch of each object away from the input note it has chosen.

VEL introduces a random velocity variation to each note as it repeats.

PAN introduces random pan variation to each note.

At the very bottom is the same PITCH FILTER we found in Jammer, which limits the output notes to a certain pitch set or scale. You can define your own pitches here, or choose from some common scales using the drop down menu.

At the bottom right are a few more controls:

ALIGN will move all objects to the first position on the grid.

RANDOM will move all objects to a random place on the grid.

LISTENER means that the timing of the grid is constant, no matter how many notes you are holding down as input.   This may seem logical, but in the first incarnation of the CALDER script in some early Soniccouture instruments it wasn't the case… CALDER calculated the timing faster as more notes were held down.   Although this was a mistake, it still sounded quite interesting, so it's still available if you want to use that mode.

If you turn on LISTENER you also have the option to LATCH incoming notes.

CHORD MUTATION

CHORD MUTATION takes its inspiration from a piece called *Triadic Memories*, in which chords are slowly repeated and transformed very gradually over a ninety minute period.

CHORD MUTATION is different from the first two Generative Tools in that aside from the starting point (the input chord), it's not affected by notes you're playing in real time. After you hit PLAY, CHORD MUTATION goes on it's own… forever.   If you save the NKI, it will store the current position of the chord, so you could make an infinite version of *Triadic Memories* of your own.

To give it an input chord, hit RECORD CHORD.   Play a chord, as soon as all keys are released, the chord is captured.   The chord can be up to 32 notes.

When you hit PLAY, this chord is arpeggiated, and defaults to the LENGTH of the number of notes in the chord.   Typically you would then increase the LENGTH parameter at the bottom right to give the mutation some breathing space, but you don't have to.

There are three aspects of the chord that are altered over time:

SHUFFLE   This alters the order of the notes, and shuffles their velocities as well.

DRIFT   This alters the position of the notes in time.

MUTATE   This alters the pitches of the chord.

There is a knob for each of these.   If the knob is set to zero, then that aspect will not change.   If it is set to 1, it will change on each repetition of the chord. If it is set to 5, it will change on the 5th repetition of the chord.

You can FORCE any of those alterations at any moment using the FORCE buttons.

RESET CHORD will set the chord back to how you first recorded it.

PLAY CHORD will play the current chord as a whole.

UPPER and LOWER, at the bottom right, limit the note mutation.   It will reflect off those boundaries.

Once again, we have the PITCH FILTER at the bottom, which limits the output notes to a certain pitch set or scale.   You can define your own pitches here, or choose from some common scales using the drop down menu.

THE EFFECTS PANEL

The Effects panel lets you configure up to six INSERT effects however you like, as well as a SPACE convolution reverb on the right.
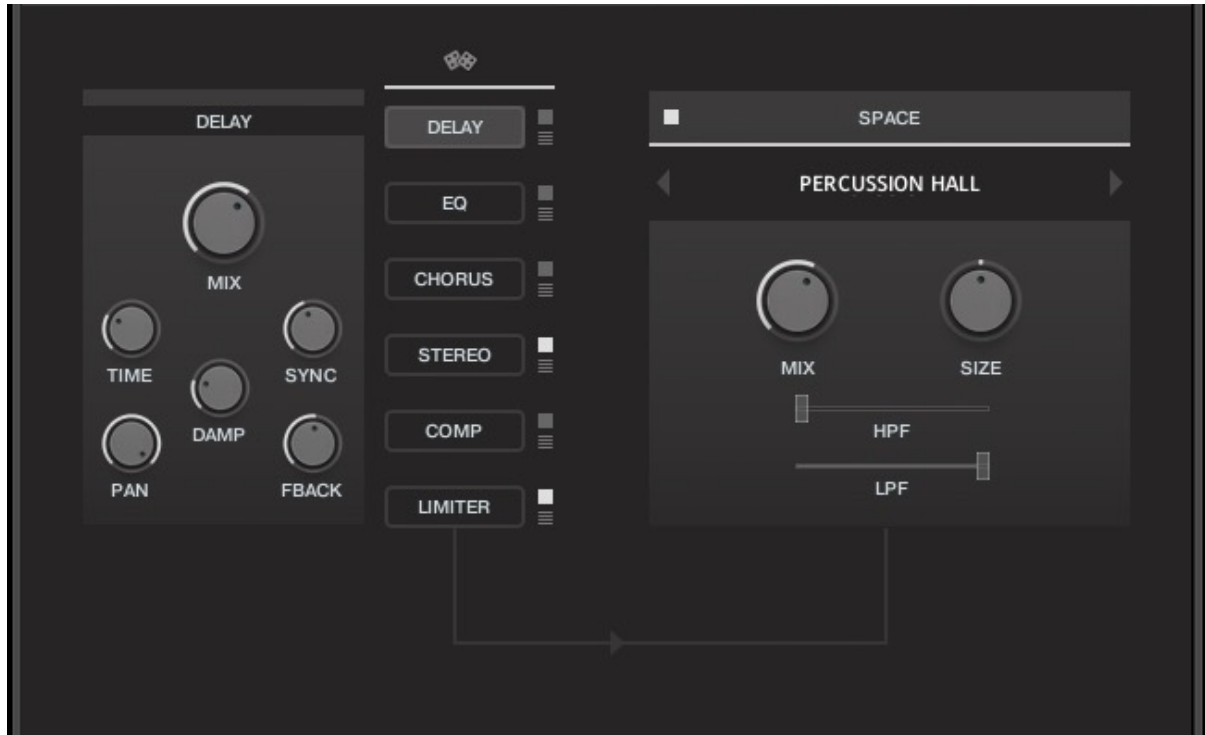
The INSERT effects are selected by the large button displaying their name, and the selected insert's controls will appear to it's left.   The small square switch to the select button's right turns the effect on or off, and the menu below that let's you choose a different type of effect.
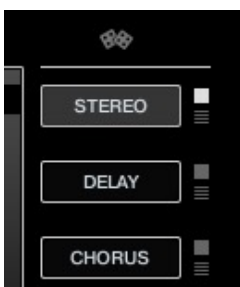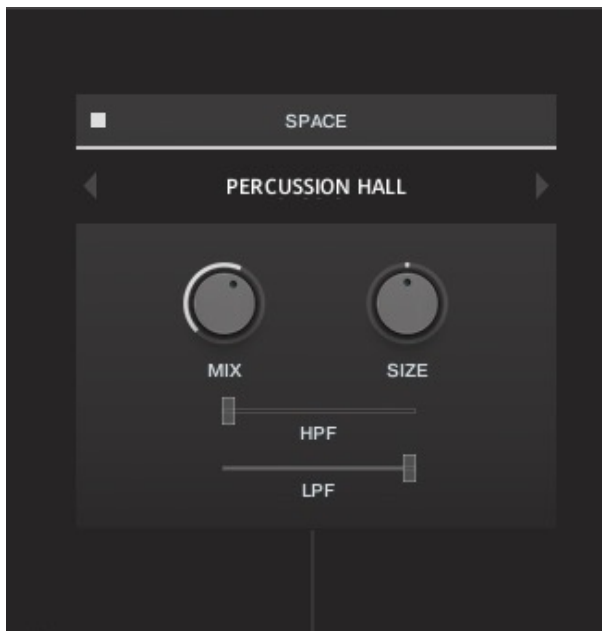

INSERT effects are in order of top to bottom. If you select an existing effect with the menu, the POSITION of those inserts will be swapped.

The small dice at the top of the INSERT list will randomize all the effect selections.

THE SPACE PROCESSOR

On the right hand side of the panel is our custom convolution based reverb processor SPACE.

Click the arrows or the name in the middle to load one of our preset impulse responses. Conventional halls or rooms are at the top of the list, vintage reverbs in the middle, and crazy spatial effects towards the end. Bear in mind that the longer the reverb time the higher your CPU meter will go.

SUPPORT

If you have any problems or questions relating to the use of this product, please feel free to contact us. You can email us at :

http://www.soniccouture.com/en/support/

We will always endeavour to reply to any enquiry within 24 hours. We are based in the UK, so please bear in mind differences in time zones.

While you are waiting, you will find lots of answers to common questions in our FAQ.

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